I. IN THE SPECIFICATION:

The following amendments are directed to the Substitute Specification filed under 37 C.F.R. Sec. 1.125 on March 05, 2004 via U.S. Express Mail Post Office to Addressee (U.S. Express Mail Label No. EV 261280769 US) in response to the Notice To File Missing Parts Of Non-Provisional Application (filed under 37 C.F.R. Sec. 1.53(b)) and mailed from the U.S. Patent & Trademark Office on January 05, 2004.

A. Please enter the following amended replacement paragraphs.

1. On page 3, line 14 to page 4, line 3:

In the preferred embodiment of the invention, the implant assembly has a hood ~~15~~ that tapers outward, in the direction of the oral cavity of the patient's ~~mouth~~ jawbone. Adjacent to the hood, is a tapered, tubular body that includes a skirt receivable within a bore provided in the ~~bone~~ jawbone of a patient. Within the tubular body is a draw screw which has a slotted head which is captured within the hollow body, and a threaded shank which is connected to the draw screw slotted head and extends to an end of the skirt. The draw screw slotted head engages an internal shoulder contained within the tapered hollow body to form a seal which isolates a first hollow body chamber on one side of the draw screw slotted head from a second hollow body chamber on an opposite side thereof. An expansion nut has an inner threaded cavity into which the shank of the draw screw is threaded. Rotation of the draw screw through the inner cavity of the expansion nut causes radial movement of the skirt from a first retracted position to a second expanded position.

2. On page 4, lines 4-5:

In an alternative embodiment of the invention, the hood has a portion removed so that the resulting circumference around the hood is non-circular.

3. On page 4, lines 8-9:

In another embodiment of the invention, the hood is adjacent to an upper collar, ~~said~~ the collar having a circumference that is equal to the largest circumference of the hood.

4. On page 4, lines 10-12:

In an alternative embodiment of the invention, the abutment is ~~permanantly~~ permanently integrated into the upper hex ~~portion~~ collar of the implant by machining, eliminating the need for attaching a separate abutment.

5. On page 4, lines 15-16:

~~Figure~~ Fig. 1 is a view of the bipolar implant of the present invention showing a tapered hood connected to a tapered tubular body, a skirt, a draw screw, an expansion nut, abutment and a prosthetic.

6. On page 4, lines 17-20:

~~Figure~~ Fig. 2 is a longitudinal cross-sectional view of the bipolar ~~dental~~ implant of ~~figure~~ Fig. 1 taken along line 2-2 of Fig. 1 showing the tapered hood, a tapered tubular body, abutment threads, the skirt, the draw screw including, a screw head, and the expansion nut.

7. On page 4, lines 21-22:

~~Figure~~ Fig. 3 is a detailed view of the expansion nut fitted within the terminal end of the skirt of the bipolar ~~dental~~ implant of ~~figure~~ Fig. 1.

8. On page 5, lines 1-3:

~~Figure~~ Fig. 4 is a view of an embodiment of the bipolar ~~dental~~ implant without the abutment and prosthesis showing three of the four bone anchor segments which form the skirt, the draw screw having been removed and showing the tapered hood.

9. On page 5, lines 4-5:

~~Figure~~ Fig. 4A is a side elevation of an alternative embodiment of the bipolar ~~dental~~ implant where a portion of the hood is removed.

10. On page 5, lines 6-7:

~~Figure~~ Fig. 5 is a top plan view of the hood of the bipolar ~~dental~~ implant of ~~figure~~ Fig. 4 showing the hood, the coronal bevel rings, and the hex collar.

11. On page 5, lines 8-10:

~~Figure~~ Fig. 5A is a top plan view of an alternative embodiment of the bipolar ~~dental~~ implant of ~~figure~~ Fig. 4A showing the upper hex collar, coronal bevel rings, and modified hood.

12. On page 5, lines 11-13:

~~Figure~~ Fig. 6 is a rotated detail view of the skirt end of the outer skirt of the bipolar ~~dental~~ implant of ~~figure~~ Fig. 4 showing the gap between any two of the four bone anchor segments.

13. On page 5, lines 14-17:

~~Figure~~ Fig. 7 is a longitudinal cross-sectional view of the bipolar ~~dental~~ implant of ~~figure~~ Fig. 1 taken along the line 7-7 of ~~figure~~ Fig. 4 showing the tapered upper hood including the abutment interface, a plurality of abutment threads and two hollow chambers formed within the tapered tubular body.

14. On page 5, after line 17 but before line 18 please insert:

Fig. 8 is a frontal view of the bipolar implant of Fig. 1 showing the implant assembly mounted within a cavity of the jawbone of a patient and illustrating a plurality of bone engaging protuberances, a continuously tapered portion ,and an abutment for mounting a prosthetic component thereon.

15. On page 5, lines 19-22:

As shown in the drawings for purposes of illustration, the present invention is concerned with a ~~dental~~ bipolar implant such as, for example, a bipolar dental implant. It will be understood, however, that the present invention may be applied to various types of implantable prosthetic devices, and is not limited to dental implants.

16. On page 6, lines 1-11:

With reference to FIGS. 1-3, ~~The~~ an implant assembly 18 comprises a hood 1, which includes an upper hood 21 and a lower hood 19. The hood 1 extends outward, toward the direction of the upper hood 21. The tapered shape of the hood 1 better accommodates the shape of a cavity 28 within the ~~bone~~ jawbone 27 of a patient resulting from the extraction of a tooth. In order to better accommodate the natural tapered shape of the resulting cavity 28 within the patient's jawbone 27, the implant assembly 18 includes a continuously tapered portion 30 extending from the upper hood 21 through the lower hood 19 and along a tapered tubular body 3 to a skirt portion 2 as is clearly shown in Figs. 1, 2, 4, 4A, 7 and 8. The upper hood 21 is adjacent to a series of beveled coronal rings 20 and the beveled coronal rings 20 serve as an interface between the implant assembly 18 and an upper hex collar 9. Once an abutment 6 and upper hex collar 9 are engaged, relative rotation is not possible due to the hexagonal or multi-sided circumference. A prosthetic component 25 such as, for example, an artificial tooth can be attached to the abutment 6 as shown in phantom in Fig. 1. Abutment threads 5 are present within the center core of the hood 1, where ~~an~~ the abutment 6 can be threadably received as shown in Figs. 1 and 2. ~~In an alternative embodiment of the invention~~ Alternately, the abutment 6 may be permanently joined to the implant, depending on the preference of the dental professional.

17. On page 6, lines 12-16:

Adjacent to the lower hood 19 is ~~a~~ the tubular body 3. The tubular body 3 tapers outward towards the hood 1. The outside surface of the tubular body 3 has bone engaging protrusions 24 as shown in Fig. 2 which carve into the bone of the patient's jaw. The tubular body 3 ends at the lower hood 19. The tubular body 3 is provided with the internal abutment threads 5 which are adapted to threadably receive ~~an~~ the abutment 6.

18. On page 6, line 17 to page 7, line 2:

Next to the tubular body 3 is ~~a~~ the skirt portion 2 radially movable from a first ~~155~~ retracted position to a second expanded position. To move the skirt portion 2 into the second expanded position, there is provided an expander means shown in the drawings as comprising an expansion nut 4 and a draw screw 8. As shown in FIGS. 2 and 7, the tubular body 3 includes an internal shoulder 13 on which a slotted head 22 of ~~a~~ the draw screw ~~22~~ 8 rests. A threaded shank portion 7 of the draw screw 8 extends below the shoulder 13 generally to a lower end of the tubular body 3 where the expansion nut 4 is threaded onto the threaded shank 7.

19. On page 7, lines 3 - 6:

Referring to Fig. 3, the end of the threaded shank 7 includes a slot 14 that permits the end of the draw screw 8 to be enlarged after the expansion nut 4 is threaded thereon. This prevents the expansion nut 4 from being inadvertently disassociated from the draw screw 8 within the bore of the patient's jawbone 27.

20. On page 7, lines 7-15:

Importantly, the draw screw 8 is configured to sealingly engage the internal shoulder 13 of the tapered tubular body 3 to isolate a first hollow body chamber 15 (defined as the area within the tubular body 3 beneath the shoulder 13 into which the threaded shank 7 extends), from a second hollow body chamber 16 (defined as the interior of the tapered hollow body 3 above the internal shoulder 13), shown in FIG. 7. In this regard, the slotted head 22 of the draw screw 8 has a tapered (non-ninety degree) shoulder 23 which, when it engages the internal shoulder 13 of the tubular body 3 as the expansion nut 4 is drawn upwardly into the skirt portion 2, causes a cold weld between the facing portions of the slotted head 22 and the internal shoulder 13, as best shown in FIG. 2.

21. On page 7, line 16 to page 8, line 3:

As most clearly shown in FIG. 4, the skirt portion 2 of the tubular body 3 is provided with four circumferentially spaced tapered slits 17 which define four separately-movable bone anchor segments 11 each having bone penetrating means provided in the form of a series of longitudinally spaced, blade-like bone penetrating protuberances 12. As the expansion nut 4 is drawn into the tubular body 3, the bone anchor segments 11 will be expanded outwardly so that penetrating protuberances 12 slice into the bone in a manner to securely lock the tubular body 3 within the bore of the ~~patient~~ patient's jawbone 27. As the expansion nut 4 is being drawn into the tubular body 3, tabs 10 which extend outwardly from an upper portion of the expansion nut 4 travel upwardly through the tapered slits 17 to prevent rotation of the expansion nut 4 relative to the tubular body 3 as shown in Figs. 2 and 3.

22. On page 8, lines 4-17:

Prior to placing the implant assembly 18 within the jawbone 27 of a patient as shown in Fig. 8, the implant assembly 18 is prepared by simply placing the draw screw 8 within the tubular body 3 so that the slotted head ~~84~~ 22 of the draw screw 8 rests against the internal shoulder 13. The expansion nut 4 is threaded onto the bottom end of the threaded shank 7 just enough to ensure that the tabs 10 of the expansion nut 4 will be properly aligned with the tapered slits 17 as shown in Fig. 1. This assembly of the tubular body 3, the draw screw 8 and the expansion nut 4 as shown in Fig. 2 is then placed within the bore of the patient's jawbone 27. A screwdriver or allen wrench may be inserted through the upper end of the tubular body 3 to turn the draw screw 8 for the purpose of drawing the expansion nut 4 upwardly into the tubular body 3. If necessary, a wrench may be utilized to engage the upper hex 9 to prevent rotation of the tubular body 3. The tabs 10 ensure that the expansion nut 4 does not rotate relative to the tubular body 3. As the expansion nut 4 is drawn into the tubular body 3, the bone anchor segments 11 expand outwardly so that the penetrating protuberances 12 slice into the bone in a manner to securely lock the tubular body 3 within the bore of ~~a~~ the patient's ~~mouth~~ jawbone 27.

23. On page 8, lines 18-21:

Figures 4A and 5A depict an alternative embodiment of the invention, where a portion of the hood 1 is removed. The resulting hood 1 has a circumference that is non-circular at any axial location in the hood 1. The purpose of this configuration, is to allow for an alternative pattern of bone growth to surround the hood 1 of the tubular body 3. The remaining structural components shown in Figs. 4A and 5A include the skirt portion 2, upper hex collar 9, bone anchor segments 11, spaced tapered slits 17, lower hood 19, beveled coronal rings 20, upper hood 21, bone engaging protrusions 24, and continuously tapered portion 30. The function of each of these structural components is the same as that described with respect to the corresponding structure disclosed in Figs. 1-7.